

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: CRESCENT LAKE	Lake Area (ha):	47.02
Town: ACWORTH	Maximum depth (m):	7.3
County: Sullivan	Mean depth (m):	3.2
River Basin: Connecticut	Volume (m ³):	1526500
Latitude: 43°16'10" N	Relative depth:	0.9
Longitude: 72°15'20" W	Shore configuration:	2.10
Elevation (ft): 1215	Areal water load (m/yr):	12.17
Shore length (m): 5100	Flushing rate (yr ⁻¹):	3.70
Watershed area (ha): 1183.6	P retention coeff.:	0.53
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

1 February 1993

7 July 1992

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 95%	CHRYOSOPHAERELLA 70%
	#2		ASTERIONELLA 15%
	#3		RHIZOSOLENIA 5%
PHYTOPLANKTON ABUNDANCE (cells/mL)			705
CHLOROPHYLL-A (µg/L)			3.84
DOM. ZOOPLANKTON (% TOTAL)	#1	SYNCHAETA 54%	KERATELLA 38%
	#2	KERATELLA 39%	POLYARTHRA 22%
	#3		VORTICELLA 14%
ROTIFERS/LITER		108	183
MICROCRUSTACEA/LITER		<1	22
ZOOPLANKTON ABUNDANCE (#/L)		114	244
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			4.3
BOTTOM DISSOLVED OXYGEN (mg/L)		8.1	0.5
BACTERIA (E. coli, #/100 ml)	#1		11
	#2		1
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	4.9
Hypolimnion volume (m ³):	26500
Anoxic volume (m ³):	21500

CHEMICAL:

Lake: CRESCENT LAKE

Town: ACWORTH

	1 February 1993		7 July 1992		
DEPTH (m)	2.0	4.0	2.0	5.0	6.5
pH (units)	6.0	6.0	6.7	6.4	5.9
A.N.C. (Alkalinity)	2.3	2.9	2.5	3.5	4.2
NITRATE NITROGEN	0.06	0.06	< 0.02	< 0.02	< 0.02
TOTAL KJELDAHL NITROGEN	0.11	0.11			
TOTAL PHOSPHORUS	0.009	0.009	0.007	0.012	0.017
CONDUCTIVITY (μ mhos/cm)	39.8	40.4	39.2	39.6	42.7
APPARENT COLOR (cpu)	24	26	16	17	27
MAGNESIUM			0.59		
CALCIUM			2.2		
SODIUM			3.1		
POTASSIUM			0.80		
CHLORIDE	4	4	5	5	5
SULFATE	6	6	6	5	6
TN : TP	19	19			
CALCITE SATURATION INDEX			3.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1992

D.O. S.D. PLANT CHL TOTAL CLASS

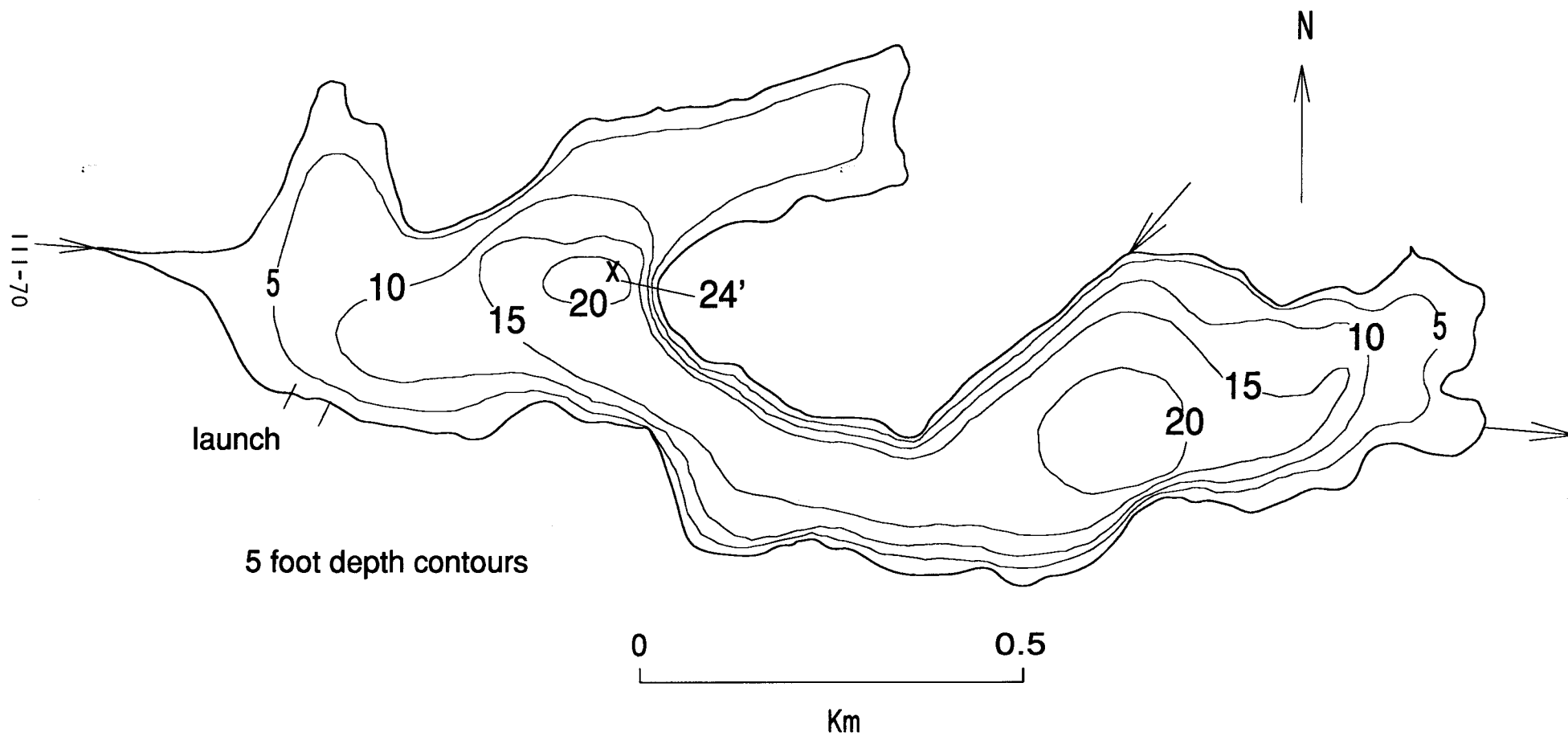
4	2	2	0	8	Meso.
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COMMENTS:

1. Launch site was adequate but needs some repair; it is into shallow water.
2. This pond was previously surveyed and classified in 1979. There was no change in the assigned trophic classification and little change in water quality.
3. The dominant genera of wholewater phytoplankton were Rhizosolenia (20%), Merismopedia (15%), Cryptomonas (15%) and tiny green flagellates (10%).

Crescent Lake

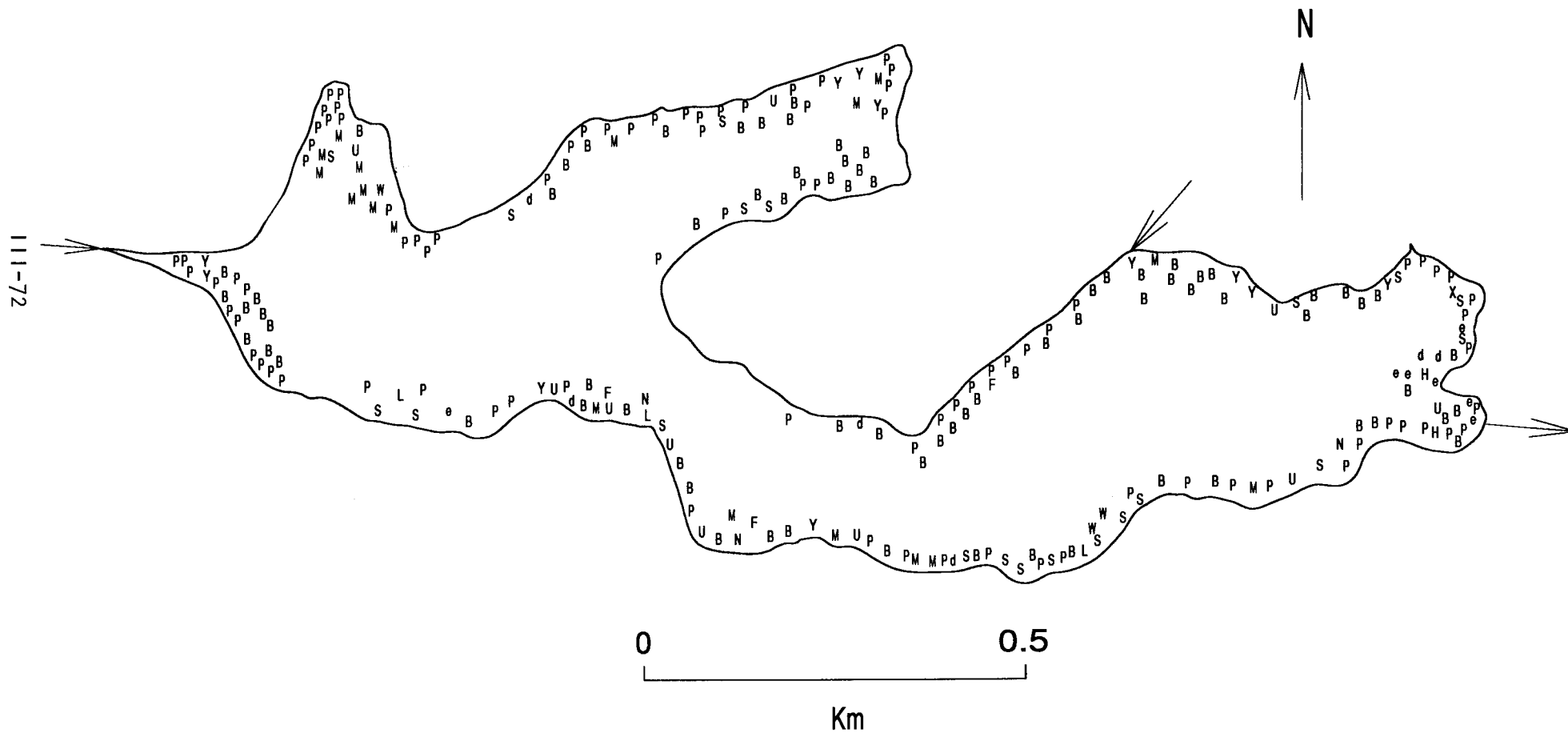
Acworth



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Crescent Lake

Acworth



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